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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/910,863 | 07/24/2001 | James P. Clarkin | P 0278401 | 4056 |

909 7590 08/08/2003
PILLSBURY WINTHROP, LLP
P.O. BOX 10500
MCLEAN, VA 22102

[REDACTED] EXAMINER

NASRI, JAVAID H

[REDACTED] ART UNIT [REDACTED] PAPER NUMBER

2839

DATE MAILED: 08/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|--|-----------------|---|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/910,863 | CLARKIN ET AL. | |
| Period for Reply | Examiner | Art Unit | |
| | Javaid Nasri | 2839 | |
| <i>-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --</i> | | | |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. | | | |
| <ul style="list-style-type: none"> - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). | | | |
| Status | | | |
| 1) <input type="checkbox"/> Responsive to communication(s) filed on _____. | | | |
| 2a) <input type="checkbox"/> This action is FINAL. | | 2b) <input checked="" type="checkbox"/> This action is non-final. | |
| 3) <input type="checkbox"/> Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. | | | |
| Disposition of Claims | | | |
| 4) <input checked="" type="checkbox"/> Claim(s) <u>1-26</u> is/are pending in the application. | | | |
| 4a) Of the above claim(s) _____ is/are withdrawn from consideration. | | | |
| 5) <input type="checkbox"/> Claim(s) _____ is/are allowed. | | | |
| 6) <input checked="" type="checkbox"/> Claim(s) <u>1-4 and 9-26</u> is/are rejected. | | | |
| 7) <input checked="" type="checkbox"/> Claim(s) <u>5-8</u> is/are objected to. | | | |
| 8) <input type="checkbox"/> Claim(s) _____ are subject to restriction and/or election requirement. | | | |
| Application Papers | | | |
| 9) <input checked="" type="checkbox"/> The specification is objected to by the Examiner. | | | |
| 10) <input checked="" type="checkbox"/> The drawing(s) filed on <u>24 July 2001</u> is/are: a) <input type="checkbox"/> accepted or b) <input checked="" type="checkbox"/> objected to by the Examiner. | | | |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). | | | |
| 11) <input type="checkbox"/> The proposed drawing correction filed on _____ is: a) <input type="checkbox"/> approved b) <input type="checkbox"/> disapproved by the Examiner. | | | |
| If approved, corrected drawings are required in reply to this Office action. | | | |
| 12) <input type="checkbox"/> The oath or declaration is objected to by the Examiner. | | | |
| Priority under 35 U.S.C. §§ 119 and 120 | | | |
| 13) <input type="checkbox"/> Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). | | | |
| a) <input type="checkbox"/> All b) <input type="checkbox"/> Some * c) <input type="checkbox"/> None of: | | | |
| 1. <input type="checkbox"/> Certified copies of the priority documents have been received. | | | |
| 2. <input type="checkbox"/> Certified copies of the priority documents have been received in Application No. _____. | | | |
| 3. <input type="checkbox"/> Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). | | | |
| * See the attached detailed Office action for a list of the certified copies not received. | | | |
| 14) <input checked="" type="checkbox"/> Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application). | | | |
| a) <input type="checkbox"/> The translation of the foreign language provisional application has been received. | | | |
| 15) <input type="checkbox"/> Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121. | | | |
| Attachment(s) | | | |
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____. | |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) | |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. | | 6) <input type="checkbox"/> Other: _____. | |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:
 - a) Certain portions of each page of the specification are not readable.
 - b) On page 4, Para [00019], change Figure 5 to -- Figure 5a --.
 - c) On page 4, Para [00020], change Figure 5 to -- Figure 5a --.
(to be consistent with figure numbering).

Appropriate correction is required.

Drawings

2. The drawings are objected to because:
 - a) Fig. 5 should be numbered as Fig. 5a.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the
 - a) more hole per claim 25, line 3
 - b) plurality of ferrules per claims 17 and 25, line 6.

must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 17-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a) Claim 17 recites the limitation "the ferrule" in line 4. There is insufficient antecedent basis for this limitation in the claim.
- b) Claim 21 recites the limitation "the ferrules" in line 2. There is insufficient antecedent basis for this limitation in the claim.
- c) Claim 25 recites the limitation "the interior wall" in line 5. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

7. Claims 1-4, 9, 13 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Takahashi.

Takahashi discloses a ferrule having an interior wall defining a hole (see col. 5, lines 14-21), at least a portion of the interior wall comprising a layer of material (wax) preferably softenable relative to the remainder of the ferrule, softening temperature lower than a softening temperature of the remainder of the ferrule (see col. 5, lines 36-41), the material has increased absorption of incident radiation relative to the remainder of the ferrule, softening temperature lower than a softening temperature of a component (optical fiber) to be inserted therein (see col. 5, lines 14-21).

8. Claims 1-4, 9, 13 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamamura et al.

Yamamura et al discloses a ferrule having an interior wall defining a hole (see claim 1), at least a portion of the interior wall comprising a layer of material preferably softenable relative to the remainder of the ferrule, softening temperature lower than a softening temperature of the

remainder of the ferrule (see claim 1), the material has increased absorption of incident radiation relative to the remainder of the ferrule, softening temperature lower than a softening temperature of a component (optical fiber) to be inserted therein (see claim 1).

9. Claims 1-4, 9, 13 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Aoki et al.

Aoki et al discloses a ferrule having an interior wall defining a hole (see col. 2, lines 29-43), at least a portion of the interior wall comprising a layer of material preferably softenable relative to the remainder of the ferrule, softening temperature lower than a softening temperature of the remainder of the ferrule (see col. 2, lines 29-43), the material has increased absorption of incident radiation relative to the remainder of the ferrule, softening temperature lower than a softening temperature of a component (optical fiber) to be inserted therein (see col. 2, lines 29-43).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 10-12, 17, 18, 20, 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi in view of Fernald et al (Patent application publication, US 2003/0021306) and Tsuchiya et al.

Takahashi discloses a tubular member including an interior wall defining a hole, depositing a material (wax) preferably softenable relative to the remainder of the tubular member onto at least a portion of the hole, by chemical vapor deposition (see col. 5, lines 14-21 and 36-41), and an increased absorption of incident radiation relative to the remainder of the ferrule,

However, Takahashi does not disclose:

- a) cutting the drawn preform to form a plurality of ferrules. Official notice is taken that cutting a ferrule is well known in the art, therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention to cut the ferrule of Takahashi to have appropriate length for better performance.
- b) a fiber including a Bragg grating formed after the fiber and ferrule are fused. Fernald et al (Patent application publication, US 2003/0021306) discloses a fiber including a Bragg grating formed after the fiber and ferrule are fused, therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention for Takahashi to have a fiber including a Bragg grating formed after the fiber and ferrule are fused in view of Fernald et al (Patent application publication, US 2003/0021306) to make it more robust.
- c) drawing the perform after depositing (melt). Tsuchiya et al discloses drawing the perform after depositing (melt) (see col. 1, lines 11-28 and col. 5, lines 21-41), therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention for Takahashi's

preform to be drawn in view of Tsuchiya et al to achieve the required size.

Allowable Subject Matter

12. Claims 19 and 21-24 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

13. Claims 5-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

REASONS FOR ALLOWANCE

14. The following is an examiner's statement of reasons for allowance:

The reason for allowance of the claims is the inclusion of the limitation,

- a) for claim 5, the layer comprising a doped material selected from the group consisting of fused quartz, silica and borosilicate glass, in combination with other limitations in the claim which is not found in the prior art reference of record.
- b) for claim 19, the drawing is performed prior to the depositing, in combination with other limitations in the claim which is not found in the prior art reference of record.

- c) for claim 21, depositing a portion of a filament within the hole of the ferrule, in combination with other limitations in the claim which is not found in the prior art reference of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Javaid Nasri whose telephone number is 703 308 5876. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on 703 308 2710. The fax phone numbers for the organization where this application or proceeding is assigned are 703 308 7722 for regular communications and 703 308 7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 0956.

Any correspondence to this action may be mailed to:

**Commissioner for Patents
Post Office Box 1450
Alexandria, VA 22313-1450**

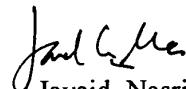
For additional information regarding this new address, which was effective May 1, 2003, see
Correspondence with the United States Patent and Trademark Office, 68 Fed. Reg. 14332
(March 25, 2003).

Or faxed to: 703-308-7722 or 308-7724 (informal or draft communications should be clearly labeled
“PROPOSED” or “DRAFT”)

Hand-delivered responses should be brought to:

Crystal Plaza 4, Fourth Floor (receptionist)

2201 South Clark Place, Arlington, Virginia


Javaid Nasri
Primary Examiner
Art Unit 2839

JN
jhn
August 1, 2003